

Engineer: Chris Samios	Date: 2/26/04				
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Approved: Chris Samios	Date: 2/26/04				
Issued/ Revised	Date: 9/2/04	Size: A	Dwg. #: <b>5961-271130-APP</b>	Rev: <b>B1</b>	Sheet: 1 Of 1

**Raytheon**

**JPS Communications**  
5800 Departure Drive, Raleigh, NC 27616

**APPLIES TO:** Motorola MTS-1000 Portable  
Motorola MTS-2000 Portable  
Motorola XTS-3000 Portable  
Motorola XTS-5000 Portable  
Motorola HT-1000 Portable  
EF Johnson 5100 Portable

**RADIO MODIFICATIONS:** None required

**RADIO PROGRAMMING:** Not required

#### **RADIO CONTROLS:**

1. Adjust the Volume Control until the yellow "SIGNAL" indicator on the associated DSP Module flashes with receive audio. Should be about in the mid-range (12 o'clock) position.

#### **CABLING:**

Standard ACU-1000 and ACU-T Interface cables are made up of a 2 foot TRP Radio Tray Interface cable and the appropriate 13-foot Extension cable.

ACU-1000 Interface Cable	JPS P/N 5961-291130	(5961-271130 + 5961-261002-00)
ACU-T Interface Cable	JPS P/N 5961-281130	(5961-271130 + 5961-281013-00)
TRP-1000 Shelf Interface Cable	JPS P/N 5961-271130	
RF Connector Type		

#### **DSP-1 JUMPERS:**

JP1	Low Impedance *
JP2	Balanced *

#### **DSP PROGRAMMING:**

RX Level	4	-4dBm
TX Level	7	4dBm
Squelch Type	VOX*	
COR Polarity	Active Low*	
High Frequency Equalizer	6	3.5dB boost
RX Audio Delay	2*	100 ms*
TX Audio Delay (Radio Type)	0*	No Delay* (See notes)
Noise Reduction Value	0*	Off*
VOX/VMR Threshold	1*	Med1*
VOX/VMR Hang Time	3*	775 ms*
COR Inhibit After PTT	1*	100 ms*
All Others		As needed

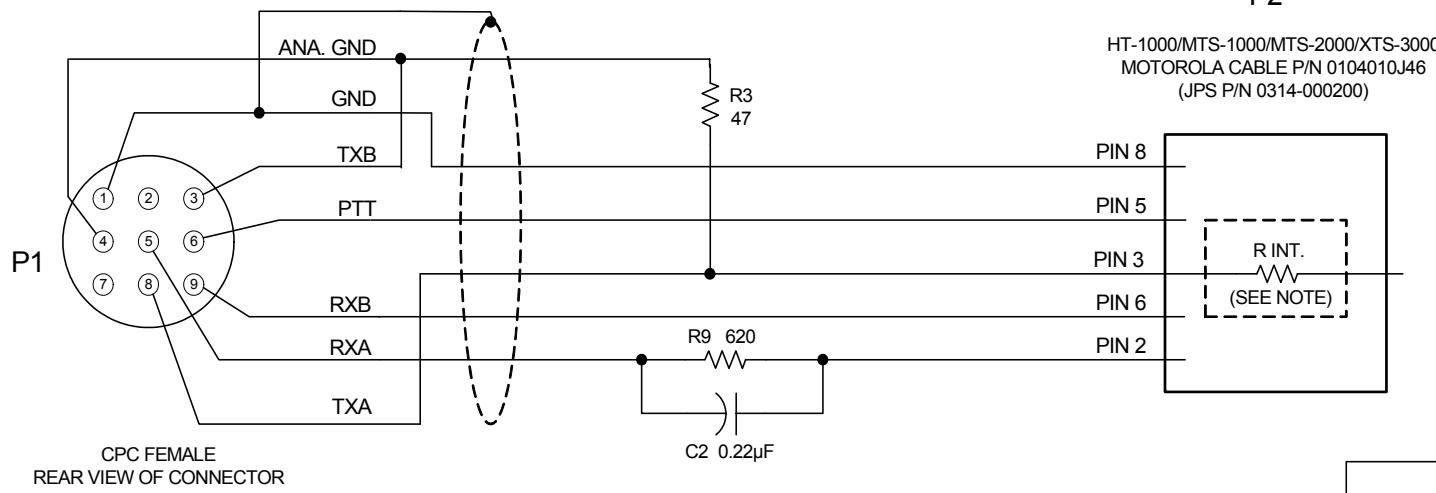
(\* Indicates Default Value)

**NOTES:** If the radio is trunked, set TX Audio Delay to 4 (800 ms).

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## PURCHASED PART

USE MOLDED CABLE  
(JPS P/N 5961-261003-00)



CPC FEMALE  
REAR VIEW OF CONNECTOR

COMPONENT PCB  
(JPS P/N 5961-271000)

R3	JPS P/N 1820-470000
R9	JPS P/N 1820-621000
C2	JPS P/N 0327-226500
JU1	
JU2	
JU5	

USED WITH:  
MOTOROLA HT-1000 PORTABLE  
MOTOROLA MTS-1000 PORTABLE  
MOTOROLA MTS-2000 PORTABLE  
MOTOROLA XTS-3000 PORTABLE  
MOTOROLA XTS-5000 PORTABLE  
EF JOHNSON 5100 PORTABLE

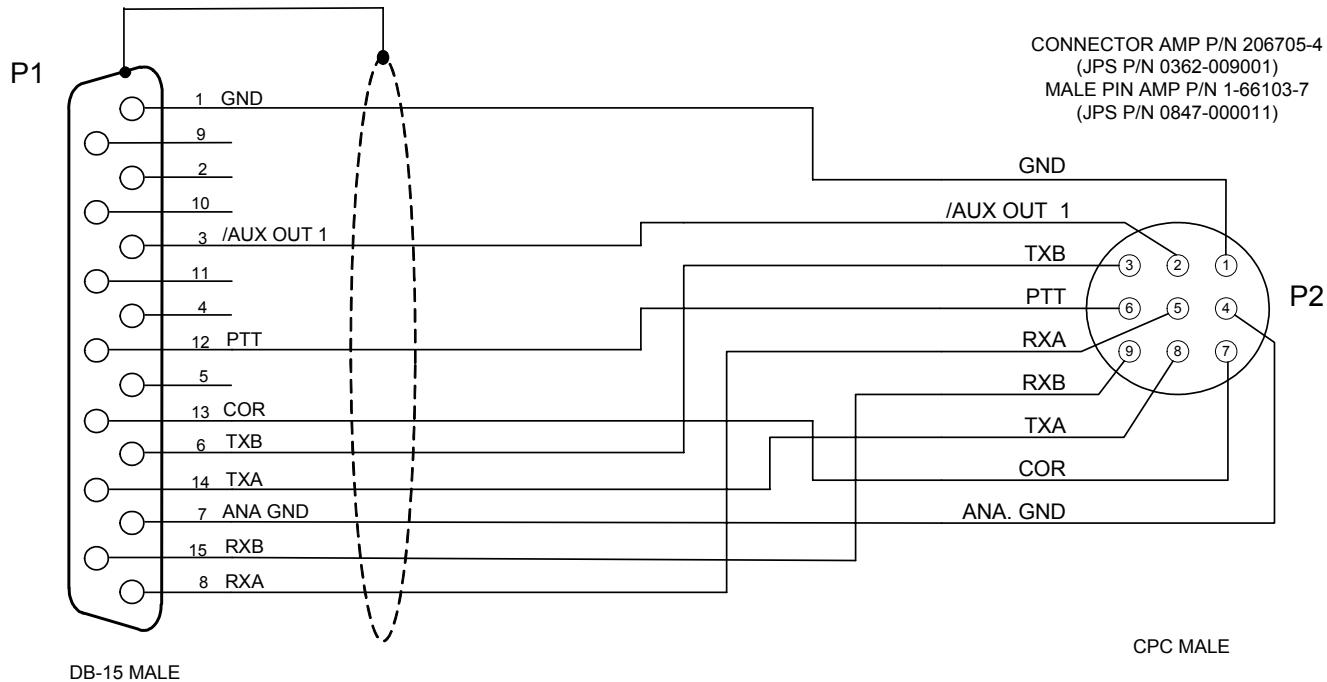
NOTES: SHIELD DRAIN CONNECTED TO PIN 1 OF P1 ONLY.

THE VALUE OF THE INTERNAL RESISTOR MAY BE 1.5 K OHMS OR 2.2 K OHMS.

Designed By:	CTS	<b>Raytheon JPS Communications</b> Raleigh, NC USA		
Drawn By:	EDV	Title CABLE, CPC TO MOTOROLA HT-1000		
Checked By:	JAC	Size A	Document Number <b>5961-271130</b>	Rev B
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# PURCHASED PART

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NOTES: 1) USE BELDEN 9934 SHIELDED CABLE.  
 2) CONNECT SHIELD DRAIN TO SHELL OF P1 ONLY.  
 3) CONNECTORS P1 AND P2 MUST BE MOLDED TO THE CABLE.  
 4) CABLE MUST BE LABELED WITH THE RAYTHEON/JPS P/N AND REV, VENDOR CODE AND DATE (MM/YY).

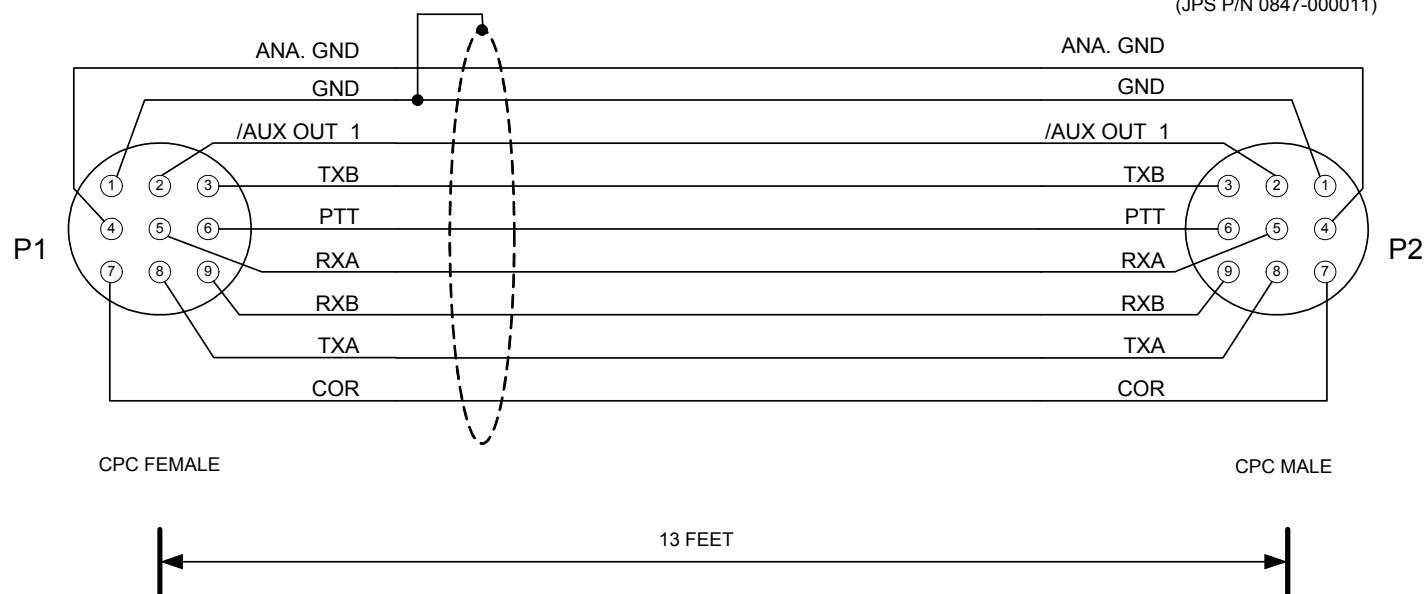
Designed By: JAC	<b>Raytheon JPS Communications</b>		
Drawn By: JAC	Title	CABLE, ACU-1000 RADIO EXTENSION - 13 FT	
Checked By: RBP	Size A	Document Number <b>5961-261002-00</b>	Rev A
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## PURCHASED PART

CONNECTOR AMP P/N 206708-1  
 (JPS P/N 0362-005003)  
 FEMALE PIN AMP P/N 1-66105-8  
 (JPS P/N 0362-005002)

CONNECTOR AMP P/N 206705-4  
 (JPS P/N 0362-009001)  
 MALE PIN AMP P/N 1-66103-7  
 (JPS P/N 0847-000011)



NOTES:

- 1) USE BELDEN 9934 SHIELDED CABLE.
- 2) CONNECT SHIELD DRAIN TO PIN 1 OF P1 ONLY.
- 3) CONNECTORS P1 AND P2 MUST BE MOLDED TO THE CABLE.
- 4) CABLE MUST BE LABELED WITH THE RAYTHEON/JPS P/N AND REV, VENDOR CODE AND DATE (MM/YY).

Designed By: JAC	<b>Raytheon JPS Communications</b> Raleigh, NC USA		
Drawn By: JAC	Title	CABLE, ACU-T RADIO EXTENSION - 13 FT	
Checked By: RBP	Size A	Document Number <b>5961-281013-00</b>	Rev A
	Issued Date	JANUARY 5, 2004	Sheet <u>1</u> of <u>1</u>